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55. (new) The underprinting fixer fluid of Claim 54, wherein the low-molecular weight hydrophilic compounds are selected from the group consisting of inorganic salts and lower alcohols.

56. (new) The ink-jet/ink composition of Claim 17, wherein the cationic poly-electrolyte comprises at least one branched polymer chain.

57. (new) The ink-jet ink composition of Claim 17, wherein the cationic poly-electrolyte is a tetrasubstituted ammonium salt.

Remarks

Reconsideration is respectfully requested.

Claims 1-17, 21-27, 30, 32, and 34-57 are pending. Claims 1-16 and 34-49 are withdrawn from consideration.

Claims 17-33, and 50-57 are elected.

Claims 18, 19, 20, 28, 29, 31 and 33 have been cancelled.

New claims 50-57 have been added.

Claims 17, 21, 22, 24, 27, 30 and 32 have been amended.

Claims 17-26 and 28-32 stand rejected under 35 U.S.C. 112, second paragraph.

Claims 17 and 27 have been amended to incorporate subject matter from cancelled claims 18, 19, 20, 23, 28, 29, 31 and 33. Claim 17 has also been amended to delete the period that was inadvertently placed at the end of line 6. Claim 17 has also been amended to delete the phrase about the ink composition and fixer

fluid together forming an amorphous viscous fluid, because the phrase is redundant. No new matter has been added.

The subject matter of cancelled claim 19 incorporated into claims 27 has been amended to change the word "polymers" to "polymer". The subject matter of cancelled claim 29 incorporated into claims 17 has been amended to change the word "polyelectrolytes" to "polyelectrolyte". The subject matter of cancelled claim 31 incorporated into claims 17 has been amended consistently with the subject matter of claim 29. Also consistent with these changes, the phrase "polymers comprise" has been amended to "polymer comprises" in claim 21, the phrase "polyelectrolytes comprise branched polymer chains" has been changed to "polyelectrolyte comprises at least one branched polymer chain" in claim 30, and the phrase "cationic polymers are tetrasubstituted ammonium salts" has been amended to "cationic polyelectrolyte is a tetrasubstituted ammonium salt" in claim 32. No new matter has been added.

Additionally, claims 21, 22, 30, and 32 have been amended to correct dependency resulting from some of the above amendments to the claims. Furthermore claim 24 has been amended to correct a grammatical error. No new matter has been added.

In light of the above amendments, the 35 U.S.C. 112, second paragraph rejections are obviated and should be withdrawn.

Claims 17, 23-29 and 32 stand rejected under 35 U.S.C. 102 (b) as being anticipated by any one of Ono et al., Kurabayashi et al. and Takahashi et al. With the amendment of claims 17 and 27 to incorporate subject matter of claims 18, 19, 20, 28, 29 and 31, claims 17 and 27 claim subject matter which is not anticipated nor made obvious by any one of Ono, Kurabayashi and Takahashi, and claims 23-29 and 32 all now depend from one of these claims.

For the above reasons, the 35 U.S.C. 102(b) rejections based on one of Ono, Kurabayashi , and Takahashi should be withdrawn.

Claims 17-33 stand rejected under 35 U.S.C. 102(e) as being anticipated by Kabalnov taken in view of the evidence given in Prasad (U.S. 5,196,056).

Applicant respectfully asserts that Kabalnov (U.S. 6,261,350) is not prior art under 35 U.S.C. 102(e). Even though Kabalnov's patent was conceived by a different inventorship entity (sole inventor: Alexey Kabalnov) than the present application (inventors: Shirley Lee, Gary Byers, Alexey Kabalnov, Mark Kowalski, Amiya Chatterjee and Keshava Prasad), the Kabalnov patent shares Kabalnov as an inventor with the present application.

Thus, the 35 U.S.C. 102(e) exclusion for a patent granted to "another" is not satisfied. As the Court of Customs and Patent Appeals stated in *In re Land*: "...when A applies for a patent jointly with B he still has in his head all the information he had as individual inventor A... When the joint and sole inventions are related, as they are here, inventor A commonly discloses the invention of A&B in the course of describing his sole invention and when he so describes the invention of A&B he is not disclosing 'prior art' to the A&B invention, even if he has legal status as 'another.'" *In re Land*, 368 F.2d 866, 879 (CCPA 1966).

Alexey Kabalnov is the sole inventor of the cited patent and had the information of the cited patent in his head when he applied jointly for a patent in the present application. Therefore, under the law as stated by the CCPA in *In re Land*, Alexey Kabalnov does not have the legal status as 'another' that must be present to satisfy 35 U.S.C. 102(e).

For the above reasons, the 35 U.S.C. 102(e) rejection based on Kabalnov should be withdrawn.

Claims 18-22 stand rejected under 35 U.S.C. 103(a) as being unpatentable over Ono et al, Kurabayashi et al. and Takahashi et al., either of which in view of either Zhu or EP 735120. As presently amended, the subject matter of cancelled claims 18, 19 and 20 has been incorporated into claim 17 and claims 21 and 22 are dependent on claim 17. Additionally, claim 17 now incorporates subject matter from

cancelled claims 28, 29 and 31 which relate to cationic polyelectrolytes and the non-polymeric cations with which the cationic polyelectrolytes are in solution. The presently claimed invention is not suggested nor made obvious by a combination of Ono, Kurabayashi or Takahashi with either Zhu or EP 735120 which together teach nothing about a dye-based inkjet ink composition which is printed on a medium over an underprinted fixer fluid comprising at least one cationic component comprising a cationic polyelectrolyte selected from the group consisting of $R_1R_2R_3R_4N^+$, $R_1R_2R_3R_4P^+$ and $R_1R_2R_3R_4As^+$, where R can be H, alkyl or other organic substituent; and wherein the cationic polyelectrolyte is in solution with non-polymeric cations selected from the group consisting of calcium ions, aluminum ions, barium ions, strontium ions, zinc ions, magnesium ions and titanium ions.

Claim 30 stands rejected under 35 U.S.C. 103(a) as being unpatentable over Ono et al, Kurabayashi et al. and Takahashi et al., either of which in view of Yatake. Furthermore claims 31 and 33 stand rejected under 35 U.S.C. 103(a) as being unpatentable over Kurabayashi et al. or Takahashi et al. either of which in view of Watanabe et al.

As presently amended, claims 31 and 33 are cancelled and claim 30 is dependent on claim 27 which now incorporates subject matter from cancelled claims 28, 29 and 31. The amended claim further incorporates subject matter from cancelled claims 18, 19 and 20 which subject matter relates to an anionic binder comprising polymers with at least one complexing group selected from the group consisting of Ethylene Diamine Tetracetic Acid, Acetyl Acetonate, Maleic Anhydride, Acrylate and combinations thereof. The presently claimed invention is not suggested nor made obvious by a combination of Ono, Kurabayashi or Takahashi with Yatake which together teach nothing about an underprinting fixer fluid which is overprinted with an ink-jet ink composition comprising at least one dye and at least one anionic binder, and wherein the at least one anionic binder comprises a polymer having at least one complexing group selected from the group consisting of Ethylene Diamine Tetracetic Acid, Acetyl Acetonate, Maleic Anhydride, Acrylate and combinations thereof.

In light of the above amendments and arguments, applicant respectfully asserts that the 35 U.S.C. 103(a) rejections of claims 18-22, 30, 31 and 33 should be withdrawn and that the presently claimed invention is patentable over any combination of the cited references.

In view of the above amendments and arguments, applicant respectfully request the Examiner's reconsideration and requests withdrawal of the presently pending §§ 112, 102 and 103 rejections. Applicants assert that the presently claimed invention should be allowed.

A prompt and positive response is respectfully requested.

Respectfully Submitted,

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AMENDED CLAIMS WITH CHANGES SHOWN

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17. A dye-based ink-jet ink composition comprising :
at least one dye and,
5 at least one anionic [component] binder,
wherein the at least one anionic binder comprises a polymer having at least
one complexing group selected from the group consisting of Ethylene Diamine
Tetracetic Acid, Acetyl Acetonate, Maleic Anhydride, Acrylate and combinations
thereof;

10 and wherein, when the ink composition is printed on a medium over an un-
derprinted fixer fluid comprising at least one cationic component, the printed ink
composition and the underprinted fixer fluid together form an amorphous, viscous
fluid on the medium, the mixture being an amorphous viscous fluid, having a vis-
cosity greater than the ink[.];

15 [and wherein, when the ink composition is printed on a medium over the
underprinted fixer fluid, the ink composition and fixer fluid together form an
amorphous viscous fluid, the viscous fluid having a viscosity greater than the ink
composition.]

20 and wherein the at least one cationic component comprises a cationic
polyelectrolyte selected from the group consisting of R1R2R3R4N⁺;
R1R2R3R4P⁺ and R1R2R3R4As⁺, where R can be H, alkyl or other organic sub-
stituent;

25 and wherein the cationic polyelectrolyte is in solution with non-polymeric
cations selected from the group consisting of calcium ions, aluminum ions, barium
ions, strontium ions, zinc ions, magnesium ions and titanium ions.

21. The ink-jet ink composition of Claim [19] 17, wherein the polymer[s] com-
prises styrene.

30 22. The ink-jet ink composition of Claim [20] 17, wherein the anionic binder
comprises hydrolyzed styrene maleic anhydride.

24. The ink-jet ink compositions of Claim 23, wherein the at least one dye having anionic functional groups [are] is selected from the group consisting of sulfonated dyes with non-polar groups, dyes with protonatable groups, dyes with carboxylate groups and dyes with phosphonate groups.

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27. An underprinting fixer fluid comprising:

at least one cationic component,

wherein the at least one cationic component comprises a cationic polyelectrolyte selected from the group consisting of R1R2R3R4N⁺; R1R2R3R4P⁺ and R1R2R3R4As⁺, where R can be H, alkyl or other organic substituent;

and wherein the cationic polyelectrolyte is in solution with non-polymeric cations selected from the group consisting of calcium ions, aluminum ions, barium ions, strontium ions, zinc ions, magnesium ions and titanium ions;

and wherein, when an ink-jet ink composition comprising at least one dye and at least one anionic [component] binder is printed on a portion of a medium underprinted with the fixer fluid, the ink composition and the fixer fluid together form an amorphous viscous fluid, the viscous fluid having a viscosity greater than the ink[.];

and wherein the at least one anionic binder comprises a polymer having at least one complexing group selected from the group consisting of Ethylene Diamine Tetracetic Acid, Acetyl Acetonate, Maleic Anhydride, Acrylate and combinations thereof.

30. The underprinting fixer fluid of claim [29] 27, wherein the polyelectrolyte[s] comprises at least one branched polymer chain[s].

32. The underprinting fixer fluid of Claim 27, wherein the cationic [polymers are] polyelectrolyte is a tetrasubstituted ammonium [salts] salt.